

# JUNIT BASIC USAGE

[http://www.tutorialspoint.com/junit/junit\\_basic\\_usage.htm](http://www.tutorialspoint.com/junit/junit_basic_usage.htm)

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Now we'll show you a step by step process to get a kick start in Junit using a basic example.

## Create a Class

- Create a java class to be tested say MessageUtil.java in **C:\ > JUNIT\_WORKSPACE**

```
/*
 * This class prints the given message on console.
 */
public class MessageUtil {

    private String message;

    //Constructor
    //@param message to be printed
    public MessageUtil(String message) {
        this.message = message;
    }

    // prints the message
    public String printMessage() {
        System.out.println(message);
        return message;
    }
}
```

## Create Test Case Class

- Create a java test class say TestJunit.java.
- Add a test method testPrintMessage() to your test class.
- Add an Annotation @Test to method testPrintMessage().
- Implement the test condition and check the condition using assertEquals API of Junit.

Create a java class file name TestJunit.java in **C:\ > JUNIT\_WORKSPACE**

```
import org.junit.Test;
import static org.junit.Assert.assertEquals;
public class TestJunit {

    String message = "Hello World";
    MessageUtil messageUtil = new MessageUtil(message);

    @Test
    public void testPrintMessage() {
        assertEquals(message,messageUtil.printMessage());
    }
}
```

## Create Test Runner Class

- Create a TestRunner java class.
- Use runClasses method of JUnitCore class of JUnit to run test case of above created test class
- Get the result of test cases run in Result Object

- Get failure(s) using getFailures() methods of Result object
- Get Success result using wasSuccessful() methods of Result object

Create a java class file name TestRunner.java in **C:\ > JUNIT\_WORKSPACE** to execute Test case(s)

```
import org.junit.runner.JUnitCore;
import org.junit.runner.Result;
import org.junit.runner.notification.Failure;

public class TestRunner {
    public static void main(String[] args) {
        Result result = JUnitCore.runClasses(TestJunit.class);
        for (Failure failure : result.getFailures()) {
            System.out.println(failure.toString());
        }
        System.out.println(result.wasSuccessful());
    }
}
```

Compile the MessageUtil, Test case and Test Runner classes using javac

```
C:\JUNIT_WORKSPACE>javac MessageUtil TestJunit.java TestRunner.java
```

Now run the Test Runner which will run test case defined in provided Test Case class.

```
C:\JUNIT_WORKSPACE>java TestRunner
```

Verify the output.

```
Hello World
true
```

Now update TestJunit in **C:\ > JUNIT\_WORKSPACE** so that test fails. Change the message string.

```
import org.junit.Test;
import static org.junit.Assert.assertEquals;
public class TestJunit {

    String message = "Hello World";
    MessageUtil messageUtil = new MessageUtil(message);

    @Test
    public void testPrintMessage() {
        message = "New Word";
        assertEquals(message,messageUtil.printMessage());
    }
}
```

Now run the Test Runner which will run test case defined in provided Test Case class.

```
C:\JUNIT_WORKSPACE>java TestRunner
```

Verify the output.

```
Hello World
testPrintMessage(TestJunit): expected:<[New Wor]d> but was:<[Hello Worl]d>
false
```